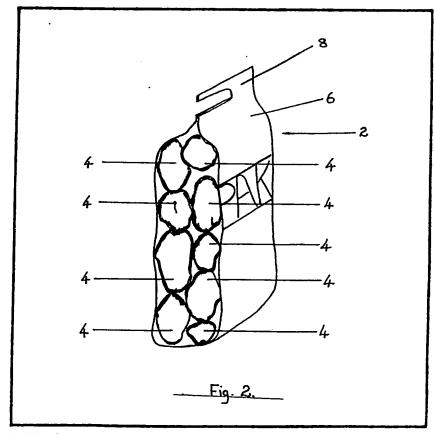
# (12) UK Patent Application (19) GB (11) 2 091 290 A

- (21) Application No 8200206
- (22) Date of filing 5 Jan 1982
- (30) Priority data
- (31) 81/01624
- (32) 20 Jan 1981
- (33) United Kingdom (GB)
- (43) Application published 28 Jul 1982
- (51) INT CL<sup>3</sup> C10L 5/00
- (52) Domestic classification C5G 6A 6C 6D
- (56) Documents cited
- GB 1281064
  - GB 1274009
  - GB 1174543
  - GB 1156129
  - GB 1074914
  - GB 990332
  - GR 989421
  - GB 981261
  - GB 887048
  - GB 839602
  - GB 780456 GB 770268
  - GB 508053
  - GB 445797
  - GB 413077
  - GB 281411
  - WO 80/02847A
- (58) Field of search C5G
- (71) Applicant
  Richard Gwynne Smith,
  Token Yard, 83A Putney
  High Street, London,
  SW15
- (72) Inventor Richard Gwynne Smith
- (74) Agents
  Graham Jones &
  Company,
  48 Mereworth Drive,
  Shooters Hill, London,
  SE18 3EE

## (54) A Combustible Package

(57) A combustible package (2) which is of a size suitable for placing on a fire and which comprises a solid fuel in the form of coal (4) or a product of coal and a wrapping (6) which covers the solid fuel to provide a clean surface for storage and handling and which is combustible so as not to adversely affect a fire formed from the combustible package.



GB 2 091 290 A

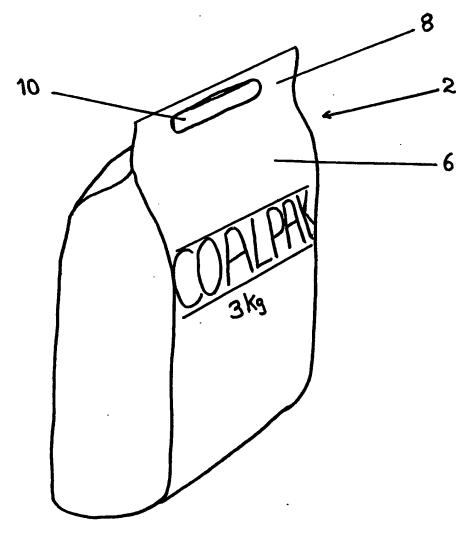


Fig.1.

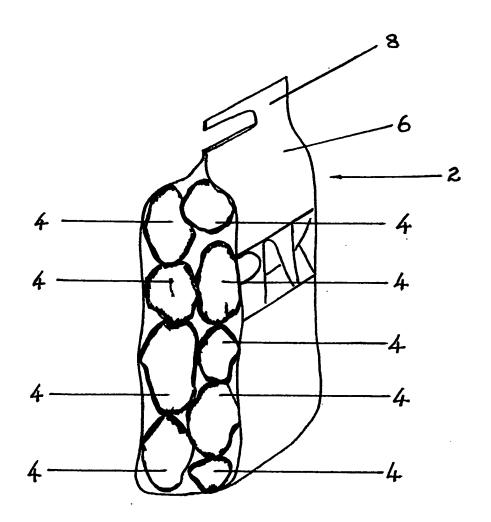


Fig. 2.

This invention relates to a combustible package. More specifically, this invention relates to a combustible package containing solid fuel in the form of coal or a product of coal.

Solid fuels in the form of coal and coal products are presently becoming price competitive compared with the alternatives of oil, 10 gas and electricity. The solid fuels are however often regarded as being inconvenient due to their bulk, weight and storage and handling requirements. The bulk and weight of the solid fuels cannot be significantly altered but the storage 15 and handling requirements of the solid fuels can be significantly improved. More specifically, solid fuel is usually sold in small pieces and these pieces are often very dirty to handle, they create dust when being stored, and they are sometimes 20 so small that a hand shovel is required to scoop them up and put them onto a fire.

It is an aim of the present invention to obviate some of the problems associated with the storage and handling requirements of solid fuel.

Accordingly, this invention provides a combustible package which is of a size suitable for placing on a fire and which comprises a solid fuel in the form of coal or a product of coal and a wrapping which covers the solid fuel to provide a
 clean surface for storage and handling and which is combustible so as not to adversely affect a fire formed from the combustible package.

Preferably, the solid fuel is present in an amount to give a combustible package which is easily handleable by domestic users.

The solid fuel is preferably coal but various smokeless fuels may also be packaged such for example as coke. If desired, very small pieces of the solid fuel can be compressed together in the 40 form of small bricks.

The wrapping may be in the form of a bag. Alternatively, if desired, the wrapping can be a tight cling fit around the solid fuel.

The wrapping will normally be strong enough to prevent the solid fuel from breaking through the wrapping as the combustible package is handled, and also such that it does not leave an apparent residue when it is burnt.

Advantageously, the wrapping will surface burn on ignition. It is not desirable that the wrapping should remain in evidence on the top cooler surface of the fire, since this is not aesthetically pleasing to domestic fire users.

The wrapping may be made from a plastics

55 material or a paper material. It is presently
envisaged that some forms of cardboard will
leave too much of an undesirable residue. The
plastics material may be transparent so that the
solid fuel can be easily seen. The plastics material
60 may be made as a cling film material if desired.
Polyethylene is a presently preferred material.
Foamed plastics materials may also be employed
but care should be taken that they do not leave an
undesirable residue on the fire. Preferably, the

65 wrapping will be arranged to burn away completely on contact with the fire.

The wrapping may be provided with any desired advertising material.

An embodiment will now be described solely 70 by way of example and with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a combustible package; and

Figure 2 is a cross section through the 75 combustible package shown in Figure 1.

Referring to the drawings, there is shown a combustible package 2 containing a solid fuel in the form of pieces of coal 4. The pieces of coal 4 are contained in a wrapping which is in the form 80 of a bag 6. The bag 6 has a top portion 8. The top portion 8 is provided with an aperture 10 so that

the bag 6 can easily be picked up.

The bag 6 is provided with advertising material which is shown in Figure 1 as the name

85 COALPAK and the weight of the package 2 which is shown in Figure 1 as 3Kg. The bag 6 provides a clean surface so that anyone handling and storing the pieces of coal 4 will not get soiled. The bag 6 further prevents coal dust from being left

90 wherever the coal is normally stored. Furthermore, when the combustible package 2 is placed on a fire, the bag 2 is arranged to be substantially totally combustible so that it will not leave an unwanted residue on the fire.

95 It is envisaged that the combustible package 2 can be burnt in any domestic fireplace or boiler. The combustible package 2 can be formed in various shapes and in various sizes as may be desired. Advantageously, the bag 6 should burn

100 away totally or char on contact with the fire and it should not remain in evidence for more than a few seconds.

In addition to clean handling and storage within people's homes, the wrapping has 105 possibilities as a marketing medium, both as a self-display item and as a method of conveying sales and promotional information.

The wrapping for the bag 6 may be chosen with the following points in mind.

110 Physical:

Size To accommodate standard load Weight size of fuel

Strength:

Shape:

Any desired shape, possibly with a small carrying tab, loop or handle.

# Chemical:

120 Ignition point:

Lower Limit—At a point high enough to ensure that the wrapping will burn away or char on contact with a normal domestic fire.

Upper Limit—At a point low enough to prevent an unacceptable fire hazard when stored in bulk. 5

### Combustion:

For aesthetic reasons it would be desirable for the wrapping to burn away completely over its total surface once ignited from the fire below.

#### Toxicity:

Non-toxic at ambient temperatures.

Acceptable products of combustion and conformity to smoke regulations.

#### 10 Surface:

Able to accept existing printing inks/dyes.

It is to be appreciated that the embodiment of the invention described above has been given by way of example only and that modifications may be effected. Thus, the pieces of coal 4 may be replaced by pieces of coke or other solid fuel, and the aperture 10 may be dispersed with. Also, the package may be used for industrial fires and burners if desired.

## 20 Claims

A combustible package which is of a size suitable for placing on a fire and which comprises a solid fuel in the form of coal or a product of coal and a wrapping which covers the solid fuel to
 provide a clean surface for storage and handling and which is combustible so as not to adversely affect a fire formed from the combustible package.

- A combustible package according to claim 1
   in which the solid fuel is present in an amount to give a combustible package which is easily handleable by domestic users.
  - 3. A combustible package according to claim 1 or claim 2 in which the solid fuel is coal.
- 4. A combustible package according to any one of the preceding claims in which the wrapping is in the form of a bag.
- A combustible package according to any one of claims 1 to 3 in which the wrapping is a tight
   cling fit around the solid fuel.
  - 6. A combustible package according to any one of the preceding claims in which the wrapping is such that it will be strong enough to prevent the solid fuel from breaking through the wrapping as
- 45 the combustible package is handled, and also such that it does not leave an apparent residue when it is burnt.
- A combustible package according to claim 6 in which the wrapping will surface burn on
   Ignition.
  - A combustible package according to any one of claims 1 to 5 in which the wrapping is made from a plastics material or a paper material.
- 9. A combustible package according to claim 855 in which the plastics material is transparent so that the solid fuel can be easily seen.
  - 10. A combustible package substantially as herein described with reference to the accompanying drawings.

Printed for Her Majesty's Stationary Office by the Courier Press, Learnington Spa, 1982. Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.